wireless device 200 communicate with specialized protocols, such as optimized packetized data protocols, for example, optimized TCP/IP protocols or other protocols such as described in the related patent applications.

Content-Based Prioritization

5   Referring to FIG. 2, a content-based priority server 202, for example, the wireless ASP server computer 106 of FIG. 1, includes a parser 204 and various data-type queues 208. The parser 204 is implemented in a hardware or software of the server 202. Incoming communications to the server 202, such as from another device of the network, for example, the server computer 104, are processed by the parser 204. The parser 204

10   distinguishes and determines the data type or types of the incoming communications. The data is then separately segregated and stored, according to respective data type, in the queues 208. For example, the queues 208 each hold separate files of data types of information received over the network, such as separate .gif, .txt, .html, .wav and so forth files in Web pages.

15   In operation, information is received over the network, such as the Internet 102, by the wireless ASP server computer 106. The information is delivered in communications from other servers and elements of the network, for example, the server computer 104 can deliver information to the wireless ASP server computer 106 corresponding to information requests of the wireless device 200 in communication with

20   the wireless ASP server computer 106. At the wireless ASP server computer 106, the parser 204 parses the information received and segregates the various data types of the information in the queues 208. The wireless ASP server computer 106 then can perform various manipulations with the information as segregated in the queues 208. For

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example, certain of the data types of the queues 208 can be discarded by the wireless ASP server computer 106. Alternatively, various prioritizations can be made by the wireless ASP server computer 106 by prioritizing the queues 208. In certain embodiments, the wireless ASP server computer 106 can send data of the separate queues 208 in desired

5   sequence, for example, by prioritizing text transmissions over image transmissions, and so forth.

Referring to FIG. 3, a method 300 is performed by the content-based priority server 202. In a step 302, the priority server 202 receives information communicated to the server 202 over the network. The information is communicated to the priority server

10   202 acting as a proxy, as the information is requested by a device served by the server 202, such as the wireless device 200. The priority server 202 serves the information to the requesting device, such as by wireless channels to the wireless device 200. The information is any of a variety of information that can be served to or otherwise maintained and located on the server 202, such as a Web page including text, images, and

15   possibly other files of varied data types. The entire information, that is, all data including the various data types of the information, is received by the server 202 in the step 302.

In a step 304, the server 202, via software or hardware of the server 202 or a device or peripheral connected to the server 202, performs a parse of the information. In the parse of the step 304, the various data types contained in the whole of the information

20   are segregated into the particular types. The server 202 then manipulates the segregated data according to programming and choices for handling dictated at the server 202, for example, the separate sets of data of each type are assigned to respective queues 208 in a step 306 or otherwise treated at the server 202 in a step 310.

The step 310 can include a variety of different operations by or in connection with the server 202, corresponding to the particular data type of each set of segregated data from the parse step 304. If the data is representative of an image data type, such as, for example, a .gif or .jpg image of a Web page, the data can be handled differently than other data. For example, such image data may indicate an ad or banner of the Web page, and the treatment in the step 310 by the server 202 can be to discard the data or otherwise handle it.

If the data type from the parse step 304 is instead data that is to be forwarded by the server 202 to the client device 200, as is the usual case, each specific data type is assigned to is respective queue 208 of the server 202 in a step 306. The various queues 208 are separately maintained memory locations (or blocks of memory) of the server 202. Data of each specific data type received as part of the information is separately maintained in the memory that is the respective queue 208.

In a step 308, the server 202 sends the data of each queue 208 according to priority sequences set at the server 202. For example, the server 202 may be programmed or instructed, manually, automatically, or otherwise, to send data contained in a certain queue 208 prior to sending data of other queues 208. In certain embodiments, for example, text data or other data that is most important in priority to the wireless device 200 can be sent first. Thereafter, data of next priority contained in a next queue 208 is sent by the server 202 to the wireless device 200. Successive queues 208 are then sent by the server 202 in round-robin manner. Of course, the sequence of sending by virtue of the distinct queues 208 of the server 202 can be any succession or coordinated delivery, including, for example, data of certain queues 208 can be sent at the same time,

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